

MassDEP Responses to Public Comments
Title 5 Nitrogen Sensitive Area and Watershed Permit Regulations
June 21, 2023

Contents

Background	2
Watershed Permit Regulations	3
1. The watershed application process was changed with the goal of being more efficient and flexible, as many commenters requested.....	3
2. The regulations are intended to accommodate the diverse range of watersheds discussed in comments.	3
3. The permitting process is intended to accommodate the wide range of applicant needs and interests that were apparent during comments.....	4
4. To address many comments seeking clarity about the primary permitting objective, the final regulations clarify that the primary measure of performance for the Watershed Permit is attainment of Necessary Nitrogen Load Reductions within prescribed time periods.	5
5. The final regulations provide an exemption for de minimis nitrogen loads, as advocated by several commenters.....	6
6. The Watershed Permit regulations were changed to address commenters’ desire for flexibility during implementation of the permit.....	6
7. The regulations were changed to address commenters’ desire for more clarity concerning permittees’ obligations in shared watersheds.....	6
8. Many commenters believed that the Department should have engaged in a more robust public outreach process.....	7
Title 5 Regulations for Natural Resource Nitrogen Sensitive Areas	9
1. The Title 5 draft regulations were changed to allow more time for communities and individuals.....	9
2. The definition of Best Available Nitrogen Reducing Technology has been changed to allow for an increase in the availability of nitrogen reducing technology options.	9
3. The regulations were changed to provide more flexibility to address commenters’ concerns with potential feasibility issues associated with limited supplies and availability of contractors..	10
4. The regulations have been changed to focus initially on Cape Cod.	10
5. The regulations can be appropriately applied to areas with a variety of different nitrogen sources, a need expressed by several commenters.	11
6. The regulations change drinking water Nitrogen Sensitive Area requirements when the area is located in both a drinking water and a Natural Resource Nitrogen Sensitive Area.	11
7. The regulations can be used for permitting related to phosphorus pollution of waterbodies.	12

8. The draft regulations were changed to increase the time period to exempt systems with previously installed nitrogen reducing technology, as requested by many commenters.....	12
9. The draft regulations were changed so that the applicable upgrade requirements apply to all existing systems, not only those with a Certificate of Compliance.	12
10. The draft regulations were changed to make it possible for the Department to accept previously commenced Scientific Evaluations.....	13
11. The Department acknowledges the concerns with costs expressed by many commenters.....	13
12. Many commenters questioned what happens if a community does not seek a Watershed Permit but the mandatory Title 5 upgrade requirements are insufficient to attain necessary nitrogen load reductions?	14
13. Commenters’ desire for the Title 5 system upgrades to be implemented in a phased approach can be most effectively accomplished through a Watershed Permit.....	14
14. Some commenters requested that the Department consider composting and urine diversion toilets for use as Best Available Nitrogen Reducing Technology.....	15
Appendix: List of Commenters.....	16

Background

After issuing the draft Title 5 Natural Resource Nitrogen Sensitive Area and Watershed Permit regulations in October 2022 the Massachusetts Department of Environmental Protection (“MassDEP” or “Department”) received over 1,000 public comments before the public comment period closed on January 31, 2023. The vast majority (approximately 900) were written comments, the remainder were comments received at the five public hearings the Department held. The Department is grateful to everyone who participated in this process. The input received has been valuable and has led to a number of changes from the draft regulations that the Department believes address many concerns and interests that were voiced during the comment period.

The issues generating the greatest number of comments were the high costs of possible Title 5 upgrades and implementation of Watershed Permits along with the desire for the state government to provide more funding. Those comments were made by individuals, municipalities, and interest groups. Other commenters, particularly individuals and municipalities from the South Coast area, were concerned that they have not had sufficient time to engage locally and with state officials relative to wastewater planning to address their particular sources of nutrient pollution, which have some variation from those on Cape Cod.

Many other commenters, including individuals, municipalities, and interest groups, were very supportive of this regulatory initiative. While many expressed a desire for the high costs to be addressed, they also believed that this regulatory initiative needed to begin soon to provide all communities with needed support and momentum. A reoccurring refrain was that this regulatory initiative “is not perfect, but we need to start now before it is too late.” Many others added, “if not now, when?” Many of these supporters advocated their support for Watershed Permits, with some asserting that the state should compel municipalities to obtain Watershed Permits, instead of giving them a choice between Title 5 upgrades or a Watershed Permit.

Summarized below in the following pages are the primary themes reflected in the comments and the Department's responses to them.

Watershed Permit Regulations

- 1. The watershed application process was changed with the goal of being more efficient and flexible, as many commenters requested.**

Several municipalities expressed support for the Watershed Permit regulations, but they expressed a strong desire for MassDEP to make the permit application process as administratively efficient and flexible as possible and to allow them to rely upon wastewater planning that they have already performed.

The final regulations are designed to be as flexible and accommodating as possible. They allow communities to rely upon prior wastewater planning documents. As discussed in the definition for Watershed Management Plan ("WMP") in 314 CMR 21.02, a permit applicant must only supplement application information that is required by 314 CMR 21.03(2) but not included in a Comprehensive Wastewater Management Plan ("CWMP"), a Targeted Wastewater Management Plan ("TWMP") or similar planning document. It is not necessary to create a new planning document. Instead, MassDEP has discretion to be flexible and focus on meeting the substantive informational needs in the permitting process.

Also, in response to comments the final regulations were amended to allow applicants to rely upon previously completed buildout scenarios, instead of having to create twenty-year projected loads. 314 CMR 21.03(2)(b)4.b. The final regulations also specifically request information about prior nitrogen reduction strategies. 314 CMR 21.03(2)(b)4.a.

Additional flexibility was provided by eliminating the requirement in the draft regulations for the governing body of the Local Government Unit to approve the wastewater planning document and methodology for the purpose of applying for a Watershed Permit. Instead, the Department will be relying upon the Local Government Units to determine what needs local approval and when it should be provided.

- 2. The regulations are intended to accommodate the diverse range of watersheds discussed in comments.**

Commenters had different perspectives about the duration of Watershed Permits and the permitting process. Some, including interest groups and individuals, believed that the draft regulations provided too much time: five years to get a permit followed by a twenty-year permit and the possibility for renewal to complete the work. In contrast, others, particularly municipalities with numerous complex watersheds, wanted more time and clarity about whether they would have more time.

The final regulations clarify the Department's expectations about the different time periods. For applicants that need more time because they are in the early stages of wastewater planning, the regulations give the Department discretion to allow up to seven years from a Natural Resource Nitrogen Sensitive Area designation to receive a Watershed Permit. Other communities that are further along in their planning can immediately apply for and obtain a Watershed Permit without filing a Notice of Intent. In recognition of these different needs, if the applicant files a Notice of Intent, the final regulations require the submission of a proposed schedule with sufficient milestones to be approved by the Department. 310 CMR 15.215(2)(c).

The Department expects that applicants will be able to attain Necessary Nitrogen Load Reductions for numerous watersheds within a single permit term, which may not exceed twenty years. "Necessary Nitrogen Load Reductions" is a newly defined concept in the regulations as: "The proportion of the total Controllable Attenuated Nitrogen Load that must be reduced in order to restore the waterbody to applicable water quality and habitat quality restoration goals that have been identified in a TMDL, Alternative Restoration Plan, MEP Report, or Scientific Evaluation as being necessary to meet the designated uses of the waterbody established by the Department under 314 CMR 4.00: *Massachusetts Surface Water Quality Standards*." 314 CMR 21.02.

Likewise, "Controllable Attenuated Nitrogen Load" is another new definition in the regulations: "The total nitrogen load from all controllable loads within the watershed that reaches the embayment or estuary." 314 CMR 21.02.

If Necessary Nitrogen Load Reductions cannot be reasonably achieved within the term of the permit, the applicant may submit information, including financial information and environmental impacts, to request an alternative schedule. 314 CMR 21.03(2)(b)13.; 314 CMR 21.04(1). The Department expects that most applicants will be able to meet the requirements of 314 CMR 21.04(1)(c) that at least 75% of the Necessary Nitrogen Load Reductions be attained during the first twenty-year permit, followed by permit renewal for a term to remove the balance of the load.

In unusual situations where 75% of the Necessary Nitrogen Load Reductions cannot be attained because of "watershed specific issues," the Department may reduce the 75% performance standard. The final regulations give examples of what may constitute "watershed specific issues": "number or complexity of watersheds, proportion of community's land area in watershed, total nitrogen load to be reduced, logistical and financial planning for wastewater infrastructure, complexity of achieving nitrogen reduction targets." 314 CMR 21.04(1)(c).

3. The permitting process is intended to accommodate the wide range of applicant needs and interests that were apparent during comments.

Some commenters expressed concern that the draft regulations did not provide enough time for a community that wanted to apply for a Watershed Permit to start and complete their wastewater planning process, whether through a CWMP, TWMP, or similar plan. Other commenters believed that the draft regulations provided too much time.

The final regulations reconcile these conflicting positions. On the one hand, the final regulations address the concern that communities need more time by providing that the party who files a Notice of Intent for a Watershed Permit must include a proposed plan with sufficient milestones that are to be approved by the Department. The proposed plan may seek to use the entire seven-year period from designation for the filing of the application and issuance of the permit. 310 CMR 15.215(2)(c).

On the other hand, the final regulations also enable the Department to reduce the time period to apply for a Watershed Permit if the full seven years is not necessary because, for example, the applicant has already performed substantial wastewater planning; has only a small contributory nitrogen load; or must only undertake relatively simple strategies to reduce nitrogen effluent. Further, the final regulations now specify that the failure to comply with deadlines and other requirements in the approved schedule to obtain a permit will commence the five-year time period for mandatory system upgrades under 310 CMR 15.215(2)(a) and the new construction requirements for Best Available Nitrogen Reducing Technology upon issuance of notice from the Department, unless the Department exercises its discretion to extend the schedule. 310 CMR 15.215(2)(a) through (e).

- 4. To address many comments seeking clarity about the primary permitting objective, the final regulations clarify that the primary measure of performance for the Watershed Permit is attainment of Necessary Nitrogen Load Reductions within prescribed time periods.**

Many commenters, including municipalities, individuals, and interest groups, desired clarification about whether permit compliance would be assessed based on attainment of necessary nitrogen load reductions or the attainment of specific water quality goals at the sentinel station(s). If it is the latter, they were concerned about meeting those goals within the term of the permit because of the multitude of variables that may affect water quality monitoring results. For example, attainment of necessary nitrogen reductions at their source might not be reflected in improved water quality for several years due to the variable length of time it may take for existing nitrogen effluent to reach the embayment or estuary.

The final regulations clarify these issues. First, they clarify that achieving nitrogen load reductions that are necessary to meet specific water quality goals is the primary objective of the permit. 314 CMR 21.01(1); 314 CMR 21.02 (definition of Watershed Management Plan); 314 CMR 21.03(2)(b)4.c, f, (b)13; 314 CMR 21.04(1); 314 CMR 21.05(1); 314 CMR 21.05(3), (5); 314 CMR 21.06; 314 CMR 21.10(10). The regulations add a new definition: “Necessary Nitrogen Load Reductions – The proportion of the total Controllable Attenuated Nitrogen Load that must be reduced in order to restore the waterbody to applicable water quality and habitat quality restoration goals that have been identified in a TMDL, Alternative Restoration Plan, MEP Report, or Scientific Evaluation as being necessary to meet the designated uses for of the waterbody established by the Department under 314 CMR 4.00: *Massachusetts Surface Water Quality Standards*.”

Also, the draft regulations provided that it was a violation of the permit if the permittee failed to achieve the target threshold concentrations identified in an approved Watershed Management Plan. This provision was removed from the regulations for the reasons discussed above. Instead, the regulations focus on the Necessary Nitrogen Load Reductions.

5. The final regulations provide an exemption for de minimis nitrogen loads, as advocated by several commenters.

A number of commenters, including municipalities and organizations, encouraged the Department to provide a different regulatory pathway for communities that encompassed a watershed or part of a watershed where the community's nitrogen contribution to the embayment or estuary was only a very small proportion of the entire watershed. Some commenters referred to this as a de minimis nitrogen load.

The Department added a provision for these situations by providing a De Minimis Nitrogen Load Exemption at 314 CMR 21.12.

6. The Watershed Permit regulations were changed to address commenters' desire for flexibility during implementation of the permit.

A number of municipalities commented that it is important to have flexibility built into the Watershed Permit regulations to accommodate necessary modifications during implementation.

The Department addressed this need for flexibility by clarifying the Department's discretion when permit modifications may be necessary and clarifying what constitutes a significant modification and what constitutes a minor modification. 314 CMR 21.06(4).

7. The regulations were changed to address commenters' desire for more clarity concerning permittees' obligations in shared watersheds.

A number of municipalities commented that they would like greater clarity regarding their obligations when they share a watershed with another community.

The Department added clarity at 314 CMR 21.03. Multiple Local Government Units that share a watershed or sub-watershed may apply jointly for a Watershed Permit, provided they have entered into a mutually enforceable agreement among the parties that confirms each applicant's percentage share of the Necessary Nitrogen Load Reductions and provides a framework to coordinate resource management decision-making and arrangements relating to the receipt and expenditure of funds for implementation. Unless otherwise stated in the mutually enforceable agreement among the parties, each Local Government Unit is only responsible for the proportion of the Controllable Attenuated Nitrogen Load that originates from within its political boundaries. Authority to enforce the Watershed Permit is reserved to the Department.

8. Many commenters believed that the Department should have engaged in a more robust public outreach process.

In 2017, MassDEP created and began engaging with a Title 5/Groundwater Discharge stakeholder group, representing a diverse range of interests, to review comments received on the Title 5 regulations and consider potential revisions, including discussion of a solution to address excessive nitrogen in embayments and estuaries.

The group included representation from the following entities:

Massachusetts Association of Conservation Commissions	Westford Board of Health
Town of Falmouth Water Quality Committee	Home Builders and Remodelers Association of MA
MA Association of Health Boards	MA Municipal Association
MA Association of Onsite Wastewater Professionals	MA Association of Realtors
MassDCR	ADS Ventures, Inc.
MA Camping Association	Horsley Witten
Town of Holliston	Rackemann Strategic Consulting, Inc.
NAIOP Commercial Real Estate Development Association	DiPlacido Development Corporation
Cape Cod Commission	NEIWPC
Association to Preserve Cape Cod	Buzzards Bay Coalition
Northeast Builders and Remodelers Association	Caputo and Wick
DF Clark Inc.	Onsite Engineering
MA Audubon Society	Meisner Brem Engineering

MassDEP subsequently invited members of this stakeholder group to participate on a subcommittee to consult on a potential regulatory approach to addressing nitrogen impacts. The subcommittee met on September 3, 2020, February 23, 2021, and June 3, 2022, to discuss potential changes to the nitrogen sensitive area provisions of the Title 5 regulations and the development of a Watershed Permit approach. Members of the subcommittee included CDM, Home Builders and Remodelers Association of Massachusetts, Massachusetts Association of Realtors, Horsley Witten, Rackemann Strategic Consulting, Inc., NAIOP Commercial Real Estate Development Association, Cape Cod Commission, Association to Preserve Cape Cod, Buzzards Bay Coalition, DF Clark Inc., Onsite Engineering, Massachusetts Audubon Society, Meisner Brem Engineering, Cape Cod Chamber of Commerce, Pleasant Bay Alliance, and Senator Cyr’s Office.

MassDEP has maintained a publicly available webpage concerning this process: [310 CMR 15.000: Septic Systems \("Title 5"\) | Mass.gov](#)

At the beginning of June 2022, MassDEP proposed and widely publicized a regulatory framework for the draft regulatory proposals, with the goal of obtaining community and public feedback prior to issuing draft regulations for formal public comment.

Throughout the summer and early fall of 2022, MassDEP actively sought and received feedback and input from affected communities, conducting extensive public, municipal, and legislative outreach:

- Over 45 public meetings took place in communities across Cape Cod and southeastern MA over the summer of 2022.
- Three briefings were held for legislators: (1) Cape and Islands Delegation; (2) Southeast Coast Delegation; and (3) jointly for both Delegations upon filing of the draft regulations.
- MassDEP reached out to 34 municipalities (met with 32, and for some communities met on multiple occasions at their request) to provide a one-on-one briefing for local officials on the proposed changes to these regulations.
- In addition to meeting with the municipalities, MassDEP engaged with and obtained feedback from several stakeholders and organizations, including: the Cape Cod Commission, Cape Cod Board of Health Coalition, Cape Cod Municipal Managers Association, One Cape Summit, Islands Local Health Coalition, Massachusetts Health Officers Association, and the Cape Cod Realtors Association.

After publication of the draft regulations in October 2022, MassDEP held five public hearings, which were attended by several hundred people, eliciting hundreds of public comments. The last public hearing was on January 25, 2023. The public comment period lasted approximately three months, closing on January 31, 2023. Over 1,000 written and oral comments have been received.

MassDEP also held four public information sessions, which were attended by several hundred individuals representing a diverse array of interests. During those sessions attendees were provided an opportunity to ask questions of MassDEP panelists to gain a better understanding of the regulatory initiative.

In addition, MassDEP offered state and local public officials and community leaders opportunities to engage directly with MassDEP and ask questions about the regulations in virtual “office hours.” Seven different office hour meetings were held and they were well attended, lasting approximately two hours each. Following those sessions, MassDEP held approximately five meetings with municipalities and related groups for them to clarify their public comments.

Despite all of the above, MassDEP acknowledges that it may not have been able to reach some individuals and communities as effectively as it did others. MassDEP intends to reach out to these other areas to facilitate and support these needed wastewater planning efforts.

Title 5 Regulations for Natural Resource Nitrogen Sensitive Areas

1. The Title 5 draft regulations were changed to allow more time for communities and individuals.

Many commentators, including individuals, municipalities, and interest groups, expressed concern that if their community did not get a Watershed Permit, they would have to upgrade their Title 5 systems within 5 years, which they believed was an insufficient amount of time.

MassDEP acknowledges the implementation complications raised by this comment. While MassDEP received many comments that the 5-year timeframe was too short, other commenters believed that MassDEP is providing too much time for necessary nitrogen load reductions. They have expressed a need for MassDEP to act more quickly before the problem becomes even worse.

The final regulations include changes from the draft regulations to strike a balance between those who believe MassDEP must act more urgently and those who prefer a longer time period. First, the Department added two years to the aggregate period in which upgrades would be required, providing system owners with a total of seven years from designation. 310 CMR 15.215(2)(a) through (c). The Department also altered the way in which the upgrade time period operates. The draft regulations provided that the 5-year upgrade requirement commenced at the time the watershed was designated as a Nitrogen Sensitive Area. That has been changed. Now, the regulations provide that upon designation, a two-year Notice of Intent and Application Period commences. During that period communities have two years to choose whether to file a Notice of Intent to apply for a Watershed Permit, apply for a Watershed Permit, or apply for a De Minimis Nitrogen Load Exemption. The filing of a Notice of Intent or an application for a Watershed Permit or De Minimis Nitrogen Load Exemption prevents the five-year upgrade period from commencing at the expiration of the Notice of Intent and Application Period. 310 CMR 15.002 (Notice of Intent and Application Period definition); 310 CMR 15.215(2)(a) through (c); 314 CMR 21.03(1).

The Department also changed the effective date of the requirement for systems serving New Construction to incorporate Best Available Nitrogen Reducing Technology from the effective date of the Nitrogen Sensitive Area designation to 6 months after the effective date of the Nitrogen Sensitive Area designation. This change will support more effective implementation of this requirement by providing the Department the opportunity to collaborate and communicate with local officials and the public regarding this requirement.

2. The definition of Best Available Nitrogen Reducing Technology has been changed to allow for an increase in the availability of nitrogen reducing technology options.

Several commenters, including individuals, system suppliers, and municipalities, were critical of the definition of Best Available Nitrogen Reducing Technology (“BANRT”). The draft regulations defined BANRT as the system approved for general use with the single best Total Nitrogen effluent performance value at the time the Disposal System

Construction Permit Application is filed. The commenters were concerned that this would limit supply and result in one company controlling the entire market.

The final regulations address this concern by specifying a tiered approach with acceptable performance ranges within each tier. The first tier includes alternative systems which have a Total Nitrogen effluent performance value of 10 mg/L or less and are certified by the Department for general use pursuant to 310 CMR 15.288 when the Disposal System Construction Permit application is filed. If no such system(s) has received general use approval, then an alternative system with the lowest Total Nitrogen effluent performance value certified for general use may be used. The third tier provides latitude for the use of systems granted certain piloting or provisional approvals. 310 CMR 15.002 (BANRT definition).

The final regulations also include a provision which requires the Department to maintain and publish a list on its website of BANRT and nitrogen reducing technologies that have received general, provisional, or piloting approval pursuant to 310 CMR 15.285 through 15.288. The Department may allow the use of technologies that do not meet the BANRT definition in the event of significant technology availability limitations. The Department may also prohibit the use of a technology as BANRT based on a technology's noncompliance with the performance standards established in the technology's approval. 310 CMR 15.215(2)(g).

3. The regulations were changed to provide more flexibility to address commenters' concerns with potential feasibility issues associated with limited supplies and availability of contractors.

Many individual, municipal, and interest group commenters questioned how Title 5 system upgrades could be completed in a five-year period given possibly severe shortages of supplies and contractors to complete the work.

The Department acknowledges this as a potential issue, particularly for any community that does not file a Notice of Intent or an application for a Watershed Permit, leading to the commencement of the mandatory five-year Title 5 upgrade requirement. The Department expects many communities will file a Notice of Intent or an application for a Watershed Permit, significantly decreasing the number of mandatory upgrades that must be accomplished in that period of time. Further, the Department expects that the market will respond by increasing the availability of upgrade alternatives and supplies. Also, as stated elsewhere in this document, the final regulations include a new definition of Best Available Nitrogen Reducing Technology ("BANRT") that specifies a range of acceptable nitrogen performance values, instead of the lowest performing system, as previously specified in the draft regulations. 310 CMR 15.002 (BANRT definition). The final regulations also include a new provision that would enable the Department to authorize the use of technologies that do not meet the definition of BANRT in the case of serious supply constraints. 310 CMR 15.215(2)(g). Last, in extreme situations the Department has discretion to extend deadlines when there is substantial delay due to supply and contractor constraints. 310 CMR 15.215(2)(e).

4. The regulations have been changed to focus initially on Cape Cod.

Some municipalities and individuals that are not on Cape Cod commented that they have not had as much time and resources as other areas to conduct nutrient wastewater planning. Because of this, they were strongly opposed to the draft regulations, believing they need more time to assess the nutrient pollution problems and potential solutions in their communities.

The draft regulations were intended to address these differences by not automatically designating any off-Cape Nitrogen Sensitive Areas upon promulgation of the regulations; in contrast to Cape Cod, where watersheds with TMDLs would be automatically designated as Nitrogen Sensitive Areas upon promulgation. Nevertheless, after considering the serious concerns that these communities expressed, the final regulations take a different approach. The provision in 310 CMR 15.214(1)(b)2. that previously provided authority for the Department to designate communities off Cape Cod as Nitrogen Sensitive Areas has been altered to focus solely on watersheds to embayments that are subject to the Cape 208 Plan. That provision no longer includes the communities off Cape Cod who expressed concerns that they have not had as much time to investigate and plan to address nutrient pollution. The Department expects, however, that some communities off Cape Cod will apply for a Watershed Permit in order to address waterbodies with a TMDL or other Scientific Evaluation showing nitrogen impacts or impairment. The Department intends to facilitate more nutrient wastewater planning for communities off Cape Cod, enabling them to be better prepared in the near future to address nitrogen pollution to embayments and estuaries.

5. The regulations can be appropriately applied to areas with a variety of different nitrogen sources, a need expressed by several commenters.

Some commenters, particularly those off Cape Cod, asserted that their sources of nitrogen to embayments and estuaries are distinctly different from nitrogen sources on Cape Cod, where the primary source of nitrogen comes from Title 5 septic systems. Because of this, they believed it would be unfair for them to be included in this regulatory initiative.

There are many different sources of nitrogen and many variables that may affect how much nitrogen ultimately reaches embayments or estuaries. This may be different from watershed to watershed. For some watersheds, septic systems are a major contributor. In others, they may not be a major contributor, but they may still be a significant part of the problem. Conducting a Scientific Evaluation is an effective way for a community to identify all potential nitrogen sources. Then, developing a Comprehensive Wastewater Management Plan allows a community to move forward and address nitrogen sources through a plan that is focused on the needs of the community. One way to account for these differences is for communities to obtain a Watershed Permit, which provides the flexibility for the community in addressing the primary sources of nitrogen.

6. The regulations change drinking water Nitrogen Sensitive Area requirements when the area is located in both a drinking water and a Natural Resource Nitrogen Sensitive Area.

Several commenters, including municipalities, individuals, and health agents, requested clarification about whether the Title 5 drinking water Nitrogen Sensitive Area standards would be affected by the Title 5 regulatory changes for Natural Resource Nitrogen Sensitive Areas.

The requirements for systems that are located *solely* in Drinking Water Nitrogen Sensitive Areas will remain the same. The requirement of meeting 440 gpd/acre continues to apply only to new construction in Zone IIs, IWPA's and in areas that have both septic systems and onsite wells.

There is one change for new construction in situations where an area is designated as a Nitrogen Sensitive Area for both drinking water supply protection and natural resource area protection under 310 CMR 15.214(1)(a) and (b). In that situation, the natural resource area requirements of 310 CMR 15.215(2) will apply and the system will need to be installed with Best Available Nitrogen Reducing Technology.

7. The regulations can be used for permitting related to phosphorus pollution of waterbodies.

Many commenters questioned whether the regulations could be used for permitting related to phosphorus pollution, which affects fresh waterbodies.

The regulations provide communities with the ability to apply for and obtain a Watershed Permit to address other nutrients, like phosphorus. 314 CMR 21.02 (definition of Watershed Management Plan).

8. The draft regulations were changed to increase the time period to exempt systems with previously installed nitrogen reducing technology, as requested by many commenters.

Many commenters, including municipalities and individuals, suggested lengthening the Title 5 upgrade exemption under 310 CMR 15.215(2)(g) (former citation).

The draft regulations at 310 CMR 15.215(2)(g) (changed to 310 CMR 15.215(2)(h)) provided that facility owners who upgraded their systems with a nitrogen reducing technology within one year prior to the effective date of the regulations were exempt from the individual system upgrade requirements in 310 CMR 15.215(2)(a) unless the Approving Authority determines that: the system has failed and is required to be upgraded; there is an alteration to or change in use of the facility that is determined to be New Construction; or the system is failing to protect the public health, safety, and the environment. The final regulations change the one-year exemption to a ten-year exemption.

9. The draft regulations were changed so that the applicable upgrade requirements apply to all existing systems, not only those with a Certificate of Compliance.

Several commenters, including municipalities and officials, believed that the Title 5 upgrade requirements in 310 CMR 15.215(2) should apply to all existing systems, not only systems with a Certificate of Compliance, as provided in the draft regulations.

The final regulations no longer have the prior limitation to existing systems with Certificates of Compliance, recognizing that there are sound policy reasons for all systems to be upgraded. For example, older systems may not have a Certificate of Compliance but should be upgraded. Consequently, the final regulations apply to all existing systems, including nonconforming and failed systems. If 310 CMR 15.215(2)(a) is applicable, all existing systems must be upgraded to incorporate Best Available Nitrogen Reducing Technology in conformity with the maximum feasible compliance requirements in 310 CMR 15.401-15.405.

10. The draft regulations were changed to make it possible for the Department to accept previously commenced Scientific Evaluations.

A number of commenters, including municipalities and interest groups, believed it was sound policy to set forth standards and requirements for Scientific Evaluations to study potential nitrogen impacts to embayments and estuaries and to have the evaluation protocol approved by the Department before the evaluation is commenced. 310 CMR 15.214(1)(b)2.c. They were concerned, however, that this pre-approval requirement would preclude their use of Scientific Evaluations that have already been commenced and are ongoing.

The final regulations include a provision that provides the Department with discretion to “accept a Scientific Evaluation commenced prior to the effective date of the new regulations.” 310 CMR 15.214(1)(b)2.b.; see also 310 CMR 15.002 (definition of Scientific Evaluation); 314 CMR 21.02 (definition of Scientific Evaluation).

11. The Department acknowledges the concerns with costs expressed by many commenters.

Many commenters, particularly individuals, expressed concerns that if their community did not obtain a Watershed Permit, the Title 5 system upgrade requirements would be very costly.

The Department recognizes the cost of the I/A systems is a major consideration for homeowners and business owners and has looked to address this both in the regulation and through funding resources. First, as noted previously, the final regulations have a modified definition for Best Available Nitrogen Reducing Technology (“BANRT”). 310 CMR 15.002 (definition of BANRT). This new definition allows for a range of nitrogen removal which allows for multiple technologies to be considered BANRT. This change along with a new provision at 310 CMR 15.215(2)(g) that allows the Department to make available for use technologies that do not meet the definition of BANRT, will help to address the concern of one supplier dominating the market and raising prices. Allowing for multiple technologies to be utilized should help reduce prices, increase supply, and provide system owners with a choice of technologies.

In addition to these regulatory changes, the Department has pursued – and is committed to continuing to pursue - other measures that would increase the availability and amount of a tax credit for septic system upgrades. The Department has been supportive of other measures that would help to alleviate costs of upgrades, like supporting wider availability of the Community Septic Management Loan Program to include mandatory upgrades. The Department has also advocated for and been supportive of the legislature providing more funding to address nitrogen pollution in embayments and estuaries. More information about funding sources can be found at the Department’s Title 5 website: [310 CMR 15.000: Septic Systems \("Title 5"\) | Mass.gov](https://www.mass.gov/info-details/310-cmr-15.000-septic-systems-title-5)

12. Many commenters questioned what happens if a community does not seek a Watershed Permit but the mandatory Title 5 upgrade requirements are insufficient to attain necessary nitrogen load reductions?

Many commenters, including municipalities and individuals, were concerned that if their community chose the Title 5 septic system upgrade requirement, instead of obtaining a Watershed Permit, they may still not achieve the necessary nitrogen load reductions to meet the applicable TMDL and comply with the Massachusetts Surface Water Quality standards.

The installation of Best Available Nitrogen Reducing Technology for the Title 5 system upgrade requirement (if a Watershed Permit is not obtained) *may* achieve the necessary reduction of nitrogen for some watersheds but not for other watersheds. The outcome would depend, among other things, on the sources of nitrogen in the watershed and how much nitrogen must be removed from the watershed in order to meet any applicable TMDL and ultimately the Massachusetts Surface Water Quality Standards.

Neither the Title 5 upgrade requirement nor a Watershed Permit relieves any federally regulated party of their responsibility to comply with the federal Clean Water Act. The United States Environmental Protection Agency is responsible for determining whether the Federal Clean Water Act has been satisfied under those circumstances.

13. Commenters’ desire for the Title 5 system upgrades to be implemented in a phased approach can be most effectively accomplished through a Watershed Permit.

Some commenters stated that in situations where communities did not apply for or obtain a Watershed Permit and the mandatory Title 5 upgrade requirements applied, the Department should require the upgrades in a phased approach. They believed that upgrades should be prioritized in phases, focusing first on systems closest to the waterbodies, and then moving landward gradually from there.

Such a phased approach would be very difficult to create and implement through the mandatory Title 5 upgrade requirement because of significant variations with development and factors that affect the rate of attenuation among watersheds. For these reasons, this type of approach could be

more effectively implemented through a Watershed Permit, which could allow for an iterative implementation strategy.

14. Some commenters requested that the Department consider composting and urine diversion toilets for use as Best Available Nitrogen Reducing Technology.

Some commenters suggested that composting toilets/greywater systems and urine diversion systems be considered a Best Available Nitrogen Reducing Technology that would fulfill the system upgrade requirements of Title 5 if their community did not apply for and obtain a Watershed Permit.

Composting toilets have General Use certification for use in Massachusetts. The use of a composting toilet requires the use of a septic system for greywater disposal. Title 5 provides a loading rate of 660 gpd/acre for residential greywater systems utilized with a composting toilet. This equates to a 19 mg/l nitrogen performance value. In order to change this performance value, an evaluation of greywater disposal system nitrogen values would need to be made to determine the amount of nitrogen “removed” using a compost toilet. Urine diversion systems have not been evaluated with a greywater system but can also be reviewed to determine the performance value. This evaluation is necessary for any technology to be considered for use as BANRT, including urine diversion toilets.

List of Commenters (Written and Oral)

In response to draft regulations at 310 CMR 15.000 & 314 CMR 21.00

Submitter	Affiliation
Aaron Souza	Dartmouth
Adna and Mark Wienzek	Dartmouth
Alan Perry	Acushnet
Albert and Jeanne Loranger	Dartmouth
Alberto Tavares	Dartmouth, Songbird Acres Board of Trustees
Alden Anderson	Cuttyhunk
Alexander and Jayne Klein	Bourne
Alexander Zollo	Mashpee
Alexandra Dumas	Westport
Alexandra Lancaster	East Falmouth
Alice Gerard	Waquoit Bay
Alice Mercer-Medeiros	Dartmouth
Alison Bowden	The Nature Conservancy
Alison Counsell	Not Stated
Alison Dixon	Pittsfield
Alison Ferrante	Falmouth
Allen Shaw	Dartmouth
Allison Argo	Brewster
Allison Dixon	Pittsfield
Americo Rodrigues	Dartmouth
Amy Fleming	Newton
Amy Gordon	Acushnet
Amy Lawton	Westport
Anca Vlasopolos, PhD	Centerville
Andrea Finnerty	Dartmouth
Andrea Prigaro	Westport
Andres Hammerman	Rochester
Andrew	Not Stated
Andrew Felix	Truro
Andrew Gottlieb	Association to Preserve Cape Cod
Andy Hammerman	Rochester
Angela Martin	North Dartmouth
Angie and Dana Leonardo	Dartmouth
Anita McCarthy Drew and John Otis Drew	Osterville
Ann Fleck-Henderson	South Orleans
Ann Marie and Marcel Gautreau	Dartmouth
Anna Edey	Martha's Vineyard
Anne	Falmouth
Anne Ford	Bourne
Anne Malone	Not Stated
Anne Miller	Eastham
Anne Remick	Dartmouth
Anne Robertson	Marion

Appendix: List of Commenters

Anne Rogers	Not Stated
Anne Salas	West Hyannis
Anneli Karniala	Centerville
Annmarie Gould	Mattapoisett
Anthony Arena	Cotuit
Anthony George	Hingham
Arthur and Kathleen Lyons	Marion
Arthur and Maureen Harlow-Hawkes	Falmouth
Avery Revere	Barnstable village
Barb Lambdin	South Dennis
Barbara Conolly	Mashpee
Barbara McDowell	Dartmouth
Barton and May Matsumoto	Dartmouth
Ben Cook	Eastham
Benjamin Hood and Anne Miller	North Eastham
Beth Nadeau	Centerville
Betsy Smith	Brewster
Bill Blunt	Dennis
Bill Thompson	Pocasset
Bob Hinkley	Acushnet Official
Bonnie Furtado	Dartmouth
Boone Porter	Cuttyhunk
Brain and Deborah LeFevre	Acushnet
Brenda & Bob Croteau	Dartmouth
Brian Boyle	Docs for Truro Safe Water
Brian Braginton-Smith	Not Stated
Brian Paradise	Cape Cod
Bruce and Donne Blackman	Cotuit
Bruce Gordon	Barnstable
Bruce Gordon	Not Stated
Bruce Walton	Centerville
Bryan Horsley	Cape Cod
Bryan P	Brewster
Captain Martin Kelly, MD	Westport
Carl and Ann Moberg	Westport
Carl Persson	Milton
Carol Geithner	Orleans
Carol Goslant	Cambridge
Carol McIntyre	Lakeville
Caroline Simmons	Dartmouth
Carolyn Fontes	Not Stated
Carolyn M. Basler	Dennis
Carter Patrick	Not Stated
Cary Wolinsky	Norwell
Cassey LePage	Westport
Catherine Ford-Daly	Dover
Cathy Fox-Alfono	Not Stated
Catie Blake Burnett	Bourne

Appendix: List of Commenters

Chris Abdow	Not Stated
Chris and Kate Greeding	Dartmouth
Chris Bade	Pocasset
Chris Collings	Not Stated
Chris Fay	Cotuit
Chris Jackson	Cotuit
Chris Morris	Dartmouth
Chris Shanahan	Falmouth
Christine Torpey	Dartmouth
Christopher and April Nye	Marion
Christopher and Diane Abbot	Westport
Christopher and Mary Fay	Dartmouth
Christopher Bogie	Dartmouth
Christopher Clark	Docs for Truro Safe Water
Christopher Hall	Dartmouth
Christopher Michaud	Dartmouth Health Department
Christopher Mines	Orleans
Christopher Mowatt	East Falmouth
Christopher O'Neil	Dartmouth Planning Board
Christy Sanatori	CCC Executive Director
Chuck Michaud	Westport
Chuck Wagner	Eastham
Claire Gallagher	Not Stated
Claire Labrode	Acushnet
Coleen Magalhaes	Dartmouth
Constance Gee	Westport
Constance Murphy	Pocasset
Corey DaSilva	Dartmouth
Craig Ferrari	Cape Cod Septic Designer
Cynthia Davis Jackson	Cotuit
Dake Henderson	Cotuit
Dale Edmunds	Cotuit
Dale Heisler	Hyannis
Dan Turner	Not Stated
Daniel Hazen	Sagamore Beach
Danielle Dolan	Deputy director of Mass Rivers Association
Darrell Correia	Dartmouth
Daryl Beardsley	BOH Member
David Churbuck	Cotuit
David Clark	Chatham
David Diamond, MD	Mashpee
David Duncan Dow	East Falmouth
David Fernandes	Dartmouth
David Fredette	New Bedford
David Kay	Harvard
David Kelly	Osterville
David Langan	Dennis
David Mark Welch	Teaticket
David Pinto	Dartmouth

Appendix: List of Commenters

David Ray	Massachusetts
David Vasconcelos	Dartmouth
David Wilson	Marion
Deb Giblin	Dartmouth
Deb Hennessey	East Falmouth
Debbie Ferreira	Dartmouth
Debbie Jones	Dartmouth
Deborah Field	Not Stated
Deborah Medeiros	Not Stated
Deborah Shea	Not Stated
Deborah Vieira	Waquoit
Deborah Ward	Mattapoisett
Debra and Mark Hartman	Dartmouth
Debra and Russell Girard	Rochester
Debra McRoberts	Bourne
Deirdre Nickerson	Cotuit
Delmer Borah	Brewster
Denise Belanger	Dartmouth
Derek DeMelo	Dartmouth
Diana Sousa	Dartmouth
Dianne and Michael Walsh	West Barnstable
Dick and Pam Boden	Hyannis
Don McCormack	Dartmouth, Songbird Acres Trust
Donald and Christine Roy	Barnstable
Donald Gifford	Westport
Donald Law	Cotuit
Donald Maynard	Not Stated
Donald McCormack	Dartmouth
Donn Charpentier	South Dartmouth
Donna and Joe Farias	Dartmouth
Donna Contardo	South Dennis
Donna Heino	Dartmouth
Donna Roy	Westport
Donna Twardzik	Dartmouth
Doreen McKinley	Dartmouth
Dot Brown	Marion
Doug Balder	Dartmouth
Doug Balder and Joan DeCollibus	Dartmouth
Doug Jones	North Dartmouth
Doug Wolff	Cape Cod
Dr. Annette Hodess	Marion
Dr. David Dow	East Falmouth
Dr. Katherine Hanson	Wellesley
Dr. Peter Bentivegna	Osterville
Dr. Steve Waller	Centerville
dsviera	Dartmouth
Earle Barnhart	East Falmouth Green Center
Ed Maguire	Mashpee
Ed McManus	Harwich

Appendix: List of Commenters

Edgar Pereira	Dartmouth
Edmund Hafner	Orleans
Edward Allen	Rochester
Edward Baker	Pocasset
Edward DaCosta	Dartmouth
Edward Dion	Dartmouth
Eileen Marum	Marion
Elizabeth	Hyannis
Elizabeth Murphy	Orleans
Elizabeth Pratt	Not Stated
Elizabeth Ramsdell	South Yarmouth
Elizabeth Walker	Chatham
Ellen C. Cavanaugh	Dartmouth
Ellen Driscoll	Mattapoisset
Ellen Heffernan	Osterville
Ellen Pildis	Waquoit
Elliot Wheelwright	Cotuit
Eloise Biscoe	Chestnut Hill
Elvio Rodrigues	South Yarmouth
Emily Nordhoff	Waltham
Eric J. Duphily	Dartmouth
Eric Mastrodo	Eastham
Eric Mistretta	Eastham
Eric Schwaab	West Hyannis
Eric Turkington	Falmouth Official
Erik and Shawna Fontaine	Dartmouth
Erik KIELTYKA	Not Stated
Erin Williams	Mashpee
Errin Chapin	Marion
Esther Finkielsztein	Centerville
Evan Davenport	Westport
Fernanda Gonsalves	Dartmouth
Francis and Joyce Cichowski	Pocasset
Francis and Kathleen Corbett	Hyannis
Frank Gasson	Pocasset
Frank King	Brewster
Frank Leal	Dartmouth
Frank Viera	Acushnet
Fred Jaffre	Falmouth
Frederic Jaffre	Falmouth
Frederick Ruymann	Docs for Truro Safe Water
G Hollands	West Hyannisport
Gabbie DiNardi	Barnstable
Gabrielle Dennison	Cuttyhunk
Gail Poliquin	Not Stated
Gail Roderigues	Westport
Gail Roderigues	Westport Bike and Walking Committee
Gary Markowitz	Save Our Shoestring Bay
Gary McNaughton	Falmouth

Appendix: List of Commenters

Gene Sorbo	Centerville
George	Not Stated
George Dimakarakos	Not Stated
George Henderson	Cotuit/Jamaica Plain
George Oleyer	Yarmouth
George Pimental	Not Stated
George Seaver, PhD	Cataumet
Gerald Cerasale	Eastham Select Board
Gerard Grenache	Dennisport res
Gilbert Perry	Dartmouth
	Mashpee Clean Waters, Citizens for the Protection of Waquoit Bay
Glen McCarthy	Bay
Glenn McCarthy	Mashpee
Greg Clear	Dartmouth
Greg McPherson	Not Stated
Gregg Fraser	Mashpee
Gregg McPherson	Not Stated
Gregory Lauer	East Falmouth
Gretchen Wollerscheis	Mashpee
Grove Harris	West Hyannisport
Harry Graff	Dennis HOA
Heather Fischer	Mashpee
Henri Brandzen	Dartmouth
Hilda Maingay	East Falmouth Green Center
Hillary Greenberg-Lemos	Wellfleet Health and Conservation Agent, Dennis Resident
Ilda and Jose Soares	North Dartmouth
Jack Ahern	Osterville
Jack Fracasso	Brewster
Jaimie Pickering	Not Stated
James Costa	North Dartmouth
James Danforth	Barnstable
James Durocher	Falmouth
James Fracasso	Brewster
James Gaffney	Dartmouth
James Jensen	Cape Cod
James Margato	Dartmouth
James Mathes	South Dartmouth
James Reed	Hyannis
James Ward	Not Stated
Jan & Keith Barber	Pocasset
Jane Anderson	Carlisle
Jane Austin	Cotuit
Jane Folkman	South Dartmouth
Jane Goguen Baronas	Falmouth
Jane Mogayzel	Dartmouth
Jane Sherwood	Dartmouth
Jane Vose	Falmouth
Jane Ward	Centerville
Janet Edmonds	Barnstable

Appendix: List of Commenters

Janeth Eby	Sandwich
Janice Davis	Cotuit
Janice Gildawie	East Falmouth
Janice Rejto	Not Stated
Janine Jenny	Dartmouth
Jason Bowie	Not Stated
Jason Phillips	Dartmouth
Jay Herther	Pocasset
Jay Kruger	Dartmouth
Jean Fisher	Not Stated
Jean Leidenfrost	Not Stated
Jeanne Concannon	Not Stated
Jeanne Wyand	Westport
Jeannine Jenney	Dartmouth
Jeff Costa	Rochester
Jeff Dobro, MD	Centerville
Jeffrey Brem	Mashpee
Jeffrey Kevorkian	Middleton
Jeffrey Roy	Westport
Jennifer and Scott Barber	Dartmouth
Jennifer Bergen	Eastham
Jennifer Goncalves	Province Mortgage
Jennifer Kinder	South Dennis
Jennifer Loughran	Cotuit
Jennifer Valentine	Forestdale
Jerry Struzik	Pocasset
Jessica	Not Stated
Jim Rollins	Acushnet
Jim Ward	Mattapoisett
Joan Hutchings	Truro
Joan Lederman	Woods Hole
Joan Menard	Dartmouth
JoAnn Cornell	Dartmouth
Joanne Cadieux-Szala	Westport
JoAnne O'Leary	Westport
Jodi Boulds	Dartmouth
John and Cynthia Azevedo	Westport
John and Sharon Chavez	Duxbury and Yarmouth
John and Terry Crowley	Westport
John Andrade	New Bedford
John Bunibuth	Bourne
John Downey	Mass Water Environment Assoc.
John Eldert	Teaticket
John Freidman	Truro
John Julius	Hyannis
John Linker	Osterville
John Mulkeen	Bourne
John Phillips	Dennis
John Riemer	Truro

Appendix: List of Commenters

John Silver	Not Stated
John Taylor	Beverly
Jolanda Ferguson	Hyannis
Jon Frank	Pocasset
Jonathan Lash	Dartmouth
Jonathan Linker	Osterville
Jonathon Fleming	Newton
Jonathon Small	Mashpee
Jordan Hitch	Dartmouth
Jorge Garcia	Dartmouth
Joseph and Susan Lasky	Marion
Joseph Erwin	Westport
Joseph Ingoldsby	Westport
Joseph Mello	Dartmouth
Joseph Salvucci	East Falmouth
Joseph Sciuto	Dartmouth
Joseph Sullivan	Brewster
Judi Alvares	Westport
Judith Bruce	Orleans
Judy Schachner	Mashpee
Julia Hopkins	Not Stated
Julie Peterson	Dartmouth
Kaethe Maguire	Bourne
Karen Caffrey	Dartmouth
Karen Coyne	North Dartmouth
Karen Gonsalves	Westport
Karen Malkus-Benjamin	Brewster
Karen Peterson-Dagnell	Acushnet
Kate and Paul Ouellette	Dartmouth
Katharine Lange	Massachusetts Rivers Alliance
Katherine Hanson	Wellesley
Katherine Weeks	Not Stated
Kathy Fox Alfano	Bourne Wastewater Commission Advisory Committee
Kathy Saulnier	South Dartmouth
Katie Cochran	Not Stated
	Pocasset Water Quality Coalition, Bourne Wastewater Advisory
Keith Barber	Committee
Keith Olcott	Not Stated
Kelly and Matthew Moniz	Dartmouth
Kelly Dacosta	Dartmouth
Kelly Swain	Dartmouth
Kenneth Loranger	Dartmouth
Kenneth Piva	Not Stated
Kenneth Spear, PE (VA, MD & DE)	East Harwich
Kevin Fay	Chatham
Kevin Galligan	Select Board Member Orleans
Kevin Keuchler	Truro
Kevin Lemieux	Swansea
Kevin Loranger	Dartmouth

Appendix: List of Commenters

Kevin Mendozza	Not Stated
Kjell Berg	Hampden
Korrin Peterson	Buzzards Bay Coalition
Kristen Viera	Acushnet
Kristin Alexander	Falmouth
L Michael Hagar	Eastham
Laudalino & Olga M. Correia	Westport
Laura Hadley	Not Stated
Laura Weatherup	Eastham
Laure MacLachlan	Pocasset
Laurie Hammontree	Not Stated
Laurie Hutton-Corr	South Dennis
LaVar Williams	Dartmouth
Lawrence Carr	Yarmouthport
Lawrence Perry	Stoughton BOH Agent and Town Sanitarian
Leslie Spencer	East Falmouth
Leslie Weslecker	Acushnet
Leslie Wing	Bourne
Leyla Day	Gosnold
Linda Hunt	East Freetown
Linda Tolman	Yarmouth
Lindi Higgins	Not Stated
Lindsey Counsell	Not Stated
Lisa Habosian	Not Stated
Lisa Riley	Not Stated
Lisa Velazquez Cunningham	North Dartmouth
Lorraine Medeiros	Dartmouth
Lou-Anne Conroy	West Barnstable
Lynn E. Garnett	Dartmouth
Lynn Harris	Mashpee
Lynne Turner	Dartmouth
Lynne Whelan	Not Stated
Madeline Bedard	Not Stated
Maggie Megaw	Waquoit
Maggie Nivison	Conservation Law Foundation
Maggie Theroux Fieldsteel	Marion
MAJ Stephen Caravana	North Dartmouth
Malcolm Carley	Cotuit
Marc Garrette	Dartmouth Environmental Affairs Coordinator
Marcia and David Alves	Dartmouth
Marcia Ciro	Not Stated
Marcus Nese	Osterville
Margaret Call-Conley	Dartmouth
Margaret Van Deusen	Not Stated
Maria DeFelice	Framingham (Lake Wequaquet)
Maria Pino	Marstons Mills
Maria Reed	Dartmouth
Marina Lent	Aquinnah Health Agent
Marion Stoddart	Ayer

Appendix: List of Commenters

Marjorie Greville	Not Stated
Marjorie Hecht	Envision Mashpee
Mark	Not Stated
Mark and Heidi Silverstein	South Dartmouth
Mark Burgess	Dennisport
Mark C Gianni	Dartmouth
Mark Ells	Barnstable Official
Mark Lacombe	Dartmouth
Mark Medeiros	Dartmouth
Mark Gianni	Not Stated
Martha Craig	Not Stated
Martha Hoefler	Pocasset Water Quality Coalition
Martha Roberts	Not Stated
Mary Adams Oleksak	Mashpee Clean Waters
Mary Ann Benner	Monument Beach
Mary Ann Morris	Dartmouth
Mary Evans	Not Stated
Mary Jane Mastrangelo	Bourne Board of Selectmen, Board of Sewer Commissioners
Mary Metzger	Not Stated
Mary Mullany	Brewster
Mary Oleksak	Mashpee
Mary Pearl	Docs for Truro Safe Water
Mary Waygan	Mashpee
Maryann and Matthew Sorensen	Dartmouth
Matt Scarborough	South Yarmouth
Matthew Bach	Westport
Matthew Elia	Not Stated
Matthew Enokson	Dartmouth
Maura O'Keefe	Falmouth Town Counsel
Maureen Floyd	West Barnstable
Maurice Lemieux	Dartmouth
Maurice Roberts	Marston Mills
Melanie Martinez	Not Stated
Melanie Pine	Dartmouth
Melinda Loberg	Tisbury Waterways
Melissa Kochan	North Dartmouth
Melissa Sylvia	Dartmouth
Meredith Harris	Mashpee Sewer Commission
Michael and Michelle Gonsalves	Dartmouth
Michael and Susan Letourneau	North Dartmouth
Michael Boucher	Acushnet Finance Committee Chairman
Michael Camara	Not Stated
Michael Dalio	Dartmouth
Michael Finegold	Falmouth
Michael Lenihan	Foxboro
Michael Letourneau	Dartmouth
Michael Leverett	Dartmouth
Michael Reynolds	North Dartmouth
Michael Santos	South Dartmouth

Appendix: List of Commenters

Michaela Wyman-Colombo	Mashpee
Michele Gray	Dartmouth
Michele Silva	Not Stated
Michelle and Steven Piva	Dartmouth
Michelle Keith	Dartmouth Board of Health
Michelle Kirby	Rochester, Snows Pond Association
Michelle LeBlanc-Gaffney	Dartmouth
Michelle Olean	Dartmouth
Michelle Peixoto	Westport
Mike Costa	Rochester
Muriel Gulacsi	Not Stated
Nancy Church	West Barnstable
Neil Jacobson	Cotuit
Nicholas Bono	Appraisals On-Cape
Nicholas Porter	Cuttyhunk
Nicole DaSilva	Dartmouth
Nicole Goldman	Woods Hole
Nicole Plante	Westport Realtor
Nicole Silva	Not Stated
Noah Clement	East Falmouth
Noah Clements	Waquoit
Oliver Resca	Lee, MA
Pamela Alvares	Westport
Pamela Brewster	Westport
Patricia Dumin and David Ray	Dennis
Patricia Pierre	Dartmouth
Patricia Tocci	Rochester
Patricia Waltner	Mashpee
Patrick D. Quinlan	Westport
Patrick Jackson	Cotuit
Patrick Otton	East Harwich
Patti DeMello	Dartmouth
Paul Bibo	Mashpee
Paul Blecharczyk	Dartmouth
Paul Champlin	Not Stated
Paul Haley	Not Stated
Paul L Rosenberg	Falmouth
Paul Lindo	New Bedford
Paul Naiman	Marion
Paul Rosenberg	Waquoit
Paula Aschettino	Eastham
Paula Filipe-Peek	Dartmouth
Paula J. Simmons	Dartmouth
Paula Mota	Not Stated
Paula Schnepf	Barnstable Town Councilor
Paula Tredeau	Falmouth
Peggy Gildersleeve	Dartmouth
Peter Bentivegna	Osterville
Peter Bullard, Attorney	Dartmouth/NewBedford

Appendix: List of Commenters

Peter Doyle	Not Stated
Peter M. Prygocki	Cotuit
Peter Mackiewicz	Sandwich
Philip and Virginia Cole	Wellfleet
Philip Cole	Wellfleet
Philip Odence	Cotuit
Philip Weinberg	Westport Board of Health
PM	Not Stated
Prudence Montgomery	East Orleans
Rachel Lynn	Not Stated
Rachel Madeiros	Dartmouth
Rachel Smith	Not Stated
Randal Mello	Dartmouth
Randall DeMello	Marion
Randall Medeiros	North Dartmouth
Raquel Rodriguez	Marstons Mills
Raymond Jack	East Falmouth
Richard and Annie Ibara	Dartmouth
Richard and Julie DeSorgher	Mashpee
Richard Angelo	Not Stated
Richard Arruda	Dartmouth
Richard Charon	Rochester
Richard Holmes	Sandwich
Richard Otis	Citizens for Protection of Waquoit Bay
Richard York	Not Stated
Rick Angelo	Not Stated
Rick Otis	Citizens for the Protection of Waquoit Bay
Robert B. Almy	Dartmouth Public Works Board
Robert Baker	Cataumet
Robert Brown	Docs for Truro Safe Water
Robert Dee	Cotuit
Robert Dutra	Dartmouth
Robert Dwyer	Pocasset Water Quality Coalition
Robert Feinberg	Dartmouth
Robert Gauvin	Dartmouth
Robert Golder	East Falmouth
Robert Oberkoetter	Westport
Robert Patten	Not Stated
Robert Perotti	Dartmouth
Robert Peterson	Canton
Robert Sarmanian	Vendor of I/A General Use Approvals
Robert Simpson	Docs for Truro Safe Water
Robert Swanson	Orleans
Robert Thompson	Harwich
Robert Tuchmann	West Newton
Robert Whritenour	Yarmouth Official
Roberta Mauch	Not Stated
Robin Beach	South Dartmouth
Robin delaFuente	Dartmouth

Appendix: List of Commenters

Roger Cournoyer	North Dartmouth
Ron Alvares	Westport
Ron Foster	Not Stated
Ronald Fichtner	Docs for Truro Safe Water
Ronald Medeiros	Dartmouth
Rosemarie Bigsby	Dartmouth
Ryan Castle	Cape & Islands Association of Realtors
Sally Brotman	Truro
Sally Edmonds	Not Stated
Sally Edmonds	Osterville
Sally Gunning	Brewster
Sam and Amita Bhatt	Cotuit
Samantha Nikula	Cape Construction Company
Sandra Medeiros	Dartmouth
Sara Molyneaux	Not Stated
Sarah Dury	Dartmouth
Sarah LeClaire	Wellfleet
Sarah Martins	North Dartmouth
Sarah Thornington	West Yarmouth
Sarah Thornington-Cericola	West Yarmouth
Scott Horsely	Engineer
Scott Pfeniger	Westport
Scott Schroeder	Cape Cod
Scott Simmons	Dartmouth
Sean Meagher	USMM/Bass River
Sergio Finkielsztein	Centerville
Sharon Brownfield	Stow
Sharon Cerretani	Cape Cod
Sharon Holloway	East Falmouth
Shawn McDonald	Dartmouth Board of Selectmen
Sheila A. Kelleher	Dartmouth
Sheila Kelleher	Dartmouth
Sheila Pereira	Dartmouth
Shelby Frazier	North Dartmouth
Shelley Dawicki	Falmouth
Shelly Dawicki	Falmouth
Sheryl Ervin	Infiltrator Water Technologies
Shilo Porter	Not Stated
Shirley Ng	Dartmouth
Sonja Bono	Not Stated
Stanley Kaczynski	Fall River
Stephanie Bach	Dartmouth
Stephen Hegarty	Westport
Stephen Monas	Waquoit
Stephen Remick	Dartmouth
Steve Bliven	South Dartmouth
Steve Carr	Not Stated
Steve Howe	Southeast Mass
Steve Stock	Rochester

Appendix: List of Commenters

Steve Waller and Jane Ward	Centerville
Steve Warner	Dartmouth
Steven Carr	Not Stated
Steven Hegarty	Westport
Steven Hoch	Osterville
Steven Love	Love Sanitation
Stuart Armstrong	Not Stated
Susan Bouley	Dartmouth
Susan Casey	Dartmouth
Susan Dangle	Save Mashpee Wakeby Pond Alliance
Susan Dominick	Cape Cod
Susan Jackson	Cotuit
Susan Jenkins	North Dartmouth
Susan Lemont	Arlington
Susan Rohrbach	Centerville
Susan Sheehan	West Barnstable
Suzanne Catraio	Dartmouth
Sxott Norum	Harwich
Sydney Moyer	Somerville
Tally Garfield	Dartmouth
Tami Fougere	Carver
Terri Babcock	Westport
Terry	Westport
Thad Eldredge	Surveying and engineering firm
Theophilos Collins	Not Stated
Theresa	Not Stated
Theresa Rudin	Cape Cod
Therese Bilodeau	Mashpee
Thomas Burgess and Annelies	
Burgess-Berbee	Cotuit
Thomas Davenport	Westport
Thomas Fudala	Mashpee Water District Elected Commissioner
Thomas Quinn	Dartmouth
Thomas Taylor	East Falmouth
Thomas Waltner	Mashpee
Tim and Sue Casey	Dartmouth
Tim Hayes	Dartmouth
Tim Smith	Not Stated
TJ Salvidio	Dartmouth
Tom Bassett	Not Stated
Tom Burgess	Cotuit
Tom Burgess and Annelies Burgess-Berbee	Cotuit
Tom Cambareri	Centerville
Tom Klein	Barnstable
Tom Swan	Osterville
Torrey Adams	Dartmouth
Tricia Tappen	Westport
Trish Duman	Not Stated

Appendix: List of Commenters

Unknown Sender Name	Not Stated
Vasiliki Limberis	Brewster
Verlaine Brandzen	Dartmouth
Vicki Tremblay	North Dartmouth
Victor and Joyce Andersen	Dartmouth
Vincent Dziezyk	Not Stated
Ward Ghory	Orleans
Will Dillingham	North Dartmouth
William and Karen Giesecke	Dartmouth
William Bade	Pocasset
William Brotherton	Orleans
William Farnham	Orleans
William Fredericks	Mattapoisett
William Grant	Cataumet
William O'Connell	Not Stated
William Raposa	Boston
William Van Spaulding	Cuttyhunk
William Veno	Pocasset
Zelda MacGregor	North Falmouth
Zenas Crocker	Barnstable Clean Water Coalition

Appendix: List of Commenters

Stakeholder Commenters:

Joseph Correia	Town of Acushnet Board of Health
Dr. Michael R. Boucher	Town of Acushnet Finance Committee Chair
Thomas Carbone	Town of Andover Public Health
Andrew Gottlieb	Association to Preserve Cape Cod
Mark Ells	Town of Barnstable, Town Manager
Dan Santos	Town of Barnstable DPW Director
Mark Forest	Barnstable County Commissioners Chair
Ronald Bergstrom	Barnstable County Commissioners Vice Chair
Sheila Lyons	Barnstable County Commissioner
Brian Baumgaertel	Barnstable County Director Department of Health & Environment
Korrin Peterson, Esq.	Buzzards Bay Coalition
Zee Crocker	Barnstable Clean Water Coalition
3 signatures, no printed names	Town of Bourne Board of Health
Peter J. Meier	Town of Bourne Board of Selectmen
Melissa Ferretti	Town of Bourne Board of Selectmen
Mary Jane Mastrangelo	Town of Bourne Board of Selectmen
Jared MacDonald	Town of Bourne Board of Selectmen
Judith McLeod Froman	Town of Bourne Board of Selectmen
Paul Anderson	Town of Brewster Water Resources Task Force
David Bennett	Town of Brewster Water Resources Task Force
Ned Chatelain	Town of Brewster Water Resources Task Force
Jon Idman	Town of Brewster Water Resources Task Force
John Keith	Town of Brewster Water Resources Task Force
Peter Lombardi	Town of Brewster Water Resources Task Force
Chris Miller	Town of Brewster Water Resources Task Force
Kim Pearson	Town of Brewster Water Resources Task Force
Amy von Hone	Town of Brewster Water Resources Task Force
Shareen Davis	Cape and Islands Municipal Leaders Association
Paul Niedzwiecki	Cape Cod Chamber of Commerce
Kristy Senatori	Cape Cod Commission
Ryan Castle	Cape Cod and Islands Association of Realtors
Jonathon Shefftz	Conservation Law Foundation
Chris Michaud	Town of Dartmouth Board of Health
Thomas Hardman	Town of Dartmouth Board of Health
Michelle Keith	Town of Dartmouth Board of Health
Christian Pope	Town of Dartmouth Board of Health
David Tatelbaum	Town of Dartmouth Select Board
Stanley Mickelson	Town of Dartmouth Select Board
Frank Gracie	Town of Dartmouth Select Board
Shawn MacDonald	Town of Dartmouth Select Board
Heidi Silva-Brooks	Town of Dartmouth Select Board
Robert Almy	Town of Dartmouth DPW
Marc Garrett	Town of Dartmouth Environmental Affairs
Christopher Lambton	Town of Dennis
Jon Terrio	Town of Dennis
Paul McCormick	Town of Dennis

Appendix: List of Commenters

Christopher Flanagan	Town of Dennis
James Plath	Town of Dennis
Jerry Cerasale	Town of Eastham Select Board
Jacqueline Beebe	Town of Eastham
Kevin Gallagher	Town of Fairhaven
Heidi Hacking	Town of Fairhaven
Michael Ristuccia	Town of Fairhaven
Charlotte Harris	Town of Falmouth Planning Board
Peter Johnson-Staub	Town of Falmouth Manager
Jared Zager	Town of Freetown
Trevor Matthews	Town of Freetown
Carlos Lopes	Town of Freetown
Keven Desmarais	Town of Freetown
Michael MacAskill	Town of Freetown
Mary Anderson	Town of Freetown
Donald Howell	Town of Freetown
Larry Ballantine	Town of Freetown
Julie Kavanaugh	Town of Harwich Selectmen
Jeffrey Brem	Home Builders and Remodelers Association of MA
Sheryl Ervin	Infiltrator Water Technologies
Pine du Bois	Jones River Watershed Association
Cheryl Sbarra	Mass. Association of Health Boards
Michael Hugo	Mass. Association of Health Boards
Justin Davidson	Mass. Association of Realtors
Randy Parker	Town of Marion Select Board
Norman Hills	Town of Marion Select Board
Carleton Burr	Town of Marion Select Board
John Howard	Town of Marion Board of Health
Edward Hoffer	Town of Marion Board of Health
Albin Johnson	Town of Marion Board of Health
Susan Dangel	Save Mashpee-Wakeby Pond Alliance
Meredith Harris	Save Mashpee-Wakeby Pond Alliance
Jonathon Small	Save Mashpee-Wakeby Pond Alliance
Carla Mullen	Save Mashpee-Wakeby Pond Alliance
Linda Smith	Save Mashpee-Wakeby Pond Alliance
Marc Blesoff	Save Mashpee-Wakeby Pond Alliance
Paul Valentine	Save Mashpee-Wakeby Pond Alliance
Don MacDonald	Save Mashpee-Wakeby Pond Alliance
Tyler Macallister	Town of Mattapoisett Select Board
Jodi Bauer	Town of Mattapoisett Select Board
Jorden Collyer	Town of Mattapoisett Select Board
Dennis W. Farias	City of New Bedford City Council
Jamie Pointe	City of New Bedford
Fred McNeill	New England Water Environment Association, Inc.
Mary Barry	New England Water Environment Association, Inc.
Patrick Hickey	Town of Oak Bluffs Wastewater Department
Nicholas Noble	Orenco Systems, Inc.
Andrew Shaw Reed	Town of Orleans Select Board
Carol Ridley	Pleasant Bay Alliance

Appendix: List of Commenters

David Golden	Town of Plymouth Board of Health
Keith Barber	Pocasset Water Quality Coalition
Robert Dwyer	Pocasset Village Association
Alex Morse	Provincetown Manager
Paul Chasse	Realtor Association Southeastern MA
Representative Paul Schmid III	MA Legislator
Representative Christopher Markey	MA Legislator
Karen Walega	Town of Rochester Health Director
Greenwod Hartley III	Town of Rochester Select Board
Paul Ciaburri	Town of Rochester Select Board
Bradford N. Morse	Town of Rochester Select Board
George Dunham	Town of Sandwich
Senator Mark Montigny	MA Legislator
Senator Susan Moran	MA Legislator
Chris Powicki	Sierra Club, Cape Cod Group
Keith Lewison	Sierra Club, Cape Cod Group
Morgan Peck	Sierra Club, Cape Cod Group
Allyson Schmidt	Sierra Club, Cape Cod Group
Mary Waygan	Sierra Club, Cape Cod Group
Deb Pasternak	Sierra Club, MA Chapter
	Town of Swansea Board of Health Director (3 signatures with no printed names)
Alexandra Nicolosi	Town of Tisbury Board of Health
Maura Valley	Town of Tisbury Board of Health
Michael D. Loberg	Tisbury waterways, Inc.
Melinda Loberg	MA Rivers Alliance
Katherine Lange	Greater Boston Chapter of Trout Unlimited
Rui Coelho	Green Newton
Marcia Cooper	Friends of the Ten Mile Rvier Watershed
Benjamin Cote	Hoosic River Watershed Association
Arianna Collins	Ipswich River Watershed Association
Wayne Castonguay	Neponset River Watershed Association
Kerry Snyder	Mass Audubon Society
Heidi Ricci	North and South River Watersheds Association
Samantha Woods	Muddy Water Initiative
Caroline Reeves	Ocean River Institute
Rob Moir	Mystic River Watershed Association
Patrick Herron	Parker River Clean Water Association
George Comiskey	Taunton River Watershed Alliance
Joseph Callahan	The Trustees of the Reservation
Linda Orel	Westport River Watershed Alliance
Roberta Carvalho	The Nature Conservancy
Alison Bowden	The Citizens for the Protection of Waquoit Bay
Rick Otis	Town of Wellfleet Select Board
Ryan Curley	Town of Wellfleet Select Board
John A. Wolf	Town of Wellfleet Select Board
Kathleen Bacon	Town of Wellfleet Select Board
Michael DeVasto	Town of Wellfleet Select Board
Barbara Carboni	Town of Wellfleet Select Board
Matthew Armendo	Town of Westport

Appendix: List of Commenters

Tanja Ryden	Town of Westport
Philip M. Weinberg	Town of Westport
Donna M. Amaral	Town of Westport
Shana Shufelt	Town of Westport
Jim Whitin	Town of Westport
Michael Sullivan	Westport River Watershed Alliance
Michael Stone	Town of Yarmouth Selectmen
Curtis Sears	Town of Yarmouth Water Resources
Alyssa Rusiecki	Yankee Onsite Wastewater Association